

## Flood Management and Equity: The missing piece in the policy puzzle

By Peter Newborne

**D**ebates on water policy tend to focus on scarcity of water, with comparatively little attention paid to analysis of policy frameworks for the management of floods.

This paper focuses on the principles that determine how governments plan and invest for the protection of people, and property, from floods. This is a fundamental issue, yet it is a neglected part of the already limited debate on flood management.

In development literature in general, some commentators take it as self-evident that governments have a responsibility to target public investment towards vulnerable and poor populations. Others are content to remark that economic and other policies will give rise to 'winners and losers'. Debate on flood management focuses on technical, economic and (to some extent) political aspects, without taking account of ethical dimensions. Although discussions of international perspectives, e.g. North-South responsibility for climate change, have included equity, the justice issues underlying the flood management policies of individual states are still neglected.

### Floods: The increasing risks

The importance of this policy area is underlined by forecasts of increased risks of floods in many regions, due to increased intensity and variability of rainfall (IPCC, 2008). In the past three decades, the number of floods has risen substantially. Each year, on average, floods affect more than 115 million people worldwide, and cost an estimated \$19 billion in economic damage, making floods the second most costly natural disasters after windstorms (CRED, 2008). In countries where flooding is the greatest threat, the decisions made by governments

to promote public attention and investment in flood protection have particular significance.

Flood 'protection' is here used to mean action by government and other agencies to avoid unwanted inundation, or, to the extent flooding cannot be eliminated, active steps by those agencies to reduce its extent and impacts. The focus here is on protection measures planned and implemented in the medium and long term, rather than shortly before flooding occurs (called 'preparedness') – or relief/recovery during/after floods. Flood 'management' is used as a broader concept referring to possible approaches at all stages, including, in some cases, decisions not to protect.

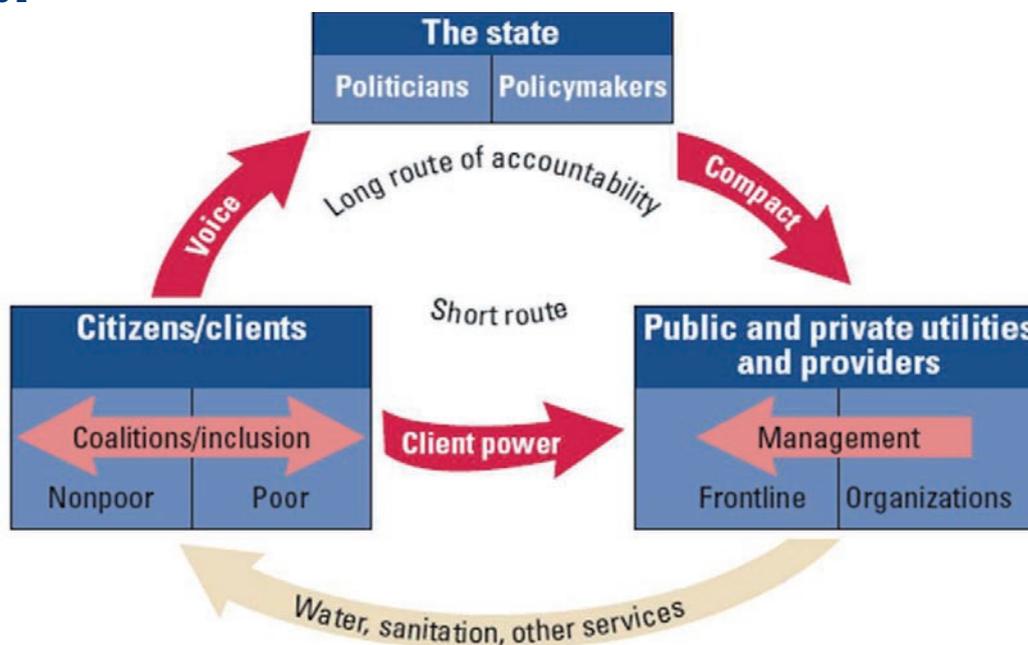
The contributions cited from the (limited) literature, and the examples chosen below, relate to developing countries and Europe. In both contexts, climate change is exacerbating flood risk – hence the relevance of South-North comparisons.

### Accountability

A first task is to identify a framework of analysis for actors and accountabilities in flood management, working on the assumption that some basis of accountability will exist on which to found protection responsibilities. The Figure, from the World Development Report (WDR) 2004, offers an analytical framework of 'key relationships of power', produced with water and sanitation services particularly in mind. While flooding itself was not mentioned in the WDR, the framework can usefully be applied to guide debate on what populations facing risk of flood may hope to receive in terms of flood management 'services'.

Via the 'short route of accountability' shown in the Figure, individuals and households as direct clients of flood service 'providers', may look for a range of flood management services relating to safety of their

Figure 1



Source: World Bank (2004).

person, such as: information on the level of flood risk in their area (short-long term); warning of impending bad weather; and help in refuge and evacuation, particularly for the most vulnerable. They may also look for: advice and help on how to make their property resistant or resilient to flood waters; and aid to help them recover from the social and economic impacts of floods on their health, home and livelihood.

However, it is the ‘long route of accountability’ shown in the Figure that is of most relevance to this enquiry. What, in this context, is the nature of the state ‘compact’: ‘the broad, long-term relationship of accountability connecting policymakers to organizational providers’ (World Bank, 2004)?

The answer seems to be that, as risks of flood increase, governments and other actors (e.g. insurance companies) are increasingly careful to qualify and limit their responsibility, especially for the protection of property. Even in countries with relatively large public budgets, officials emphasise that they cannot guarantee protection for all locations.

In England, for example, flood managers of the Environment Agency – interviewed on television beside rivers in spate – are at pains to tell us that, when the skies open, technology will only take us so far. So, despite the ever increasing sophistication of meteorological and hydrological modelling, engineering of ‘hard’ structures, and ‘soft’ methods of land management, their own role now is ‘flood risk management’, rather than flood ‘defence’.

In relation to the other limb of the long route – the

‘voice’ of citizens— the following issue arises: which principles of justice may be invoked to justify citizens’ claims for support from the state? Cooperation is essential for effective flood protection, and citizens, whether individually or collectively in communities, will be better able to resist flood threats with assistance from state institutions.

### Three countries, three ethical viewpoints

#### A right to protection

Some argue that all individuals have the right to a basic minimum level of protection from hazards. Twigg (2003) proposes a right to safety based on Article 12 of the International Covenant on Economic, Social and Cultural Rights, as interpreted in UN General Comment no 14. on the right to health.

In Honduras, ODI and its partners, sponsored by Christian Aid, have carried out a status check of laws, policies and institutions (Newborne, 2008; Talavera 2008). The 2006 draft law for creation of a ‘national system for risk management’ included a ‘right to protection’ (derecho a la protección). Article 1.3 states that: ‘every person located within the national territory should be protected in his/her physical security, productive unit/system, goods and environment *in the face of physical threats which can affect him/her*’. The October 2008 version of the Article has replaced the italicised words with ‘in face of the construction of risk scenarios, seeking to ensure his/her survival in conditions compatible with human rights principles’. The revised wording does not

express the proposed right in absolute terms ('seeking' rather than 'guaranteeing') and the scenarios (plural) contemplated would allow for different levels of protection according to degrees of risk.

As to implementation of this putative right to protection, the concept of progressive realisation, fundamental to human rights, would presumably apply – whereby states should take at least some steps that are (in the key words of rights) 'deliberate', 'concrete', 'targeted', and 'appropriate'. Meanwhile, Article 1.3 would, once the proposed law is passed, bring into effect the principle of non-discrimination. From the outset, the Honduran government would be committed to treating all its citizens on an equal footing – or at least those citizens included within each risk scenario 'without discrimination on any ground such as race, colour, sex, language, religion, political or other opinion, national or social origin, property, birth or other status' (UN General Comment no. 18).

Further research would be useful to investigate how, in the Honduran context, to convert the right as proposed on paper into reality: what mechanisms would be needed in practice, including for non-discrimination.

### Maximum utility

Cost-benefit analysis is a commonly-used tool for guiding decisions on distribution of public funds to flood projects. This methodology is based on the principle of maximum utility, according to which the projects chosen should be those that will secure the greatest risk reduction per unit of resource input, as noted in an authoritative study on the flood management regime in England and Wales (Johnson, 2008).

The project appraisal system as operated by the government has been criticised for resulting in urban bias, to the detriment of rural areas. Although national flood managers insist they are 'not walking away', government policy is, in effect, downgrading the protection priority of settlements located outside larger centres of population.

Voices have been raised, in particular, in areas on or near the east coast of England, which is vulnerable to relative sea level rise and coastal erosion, i.e. encroachment by the sea in a sustained process. Too often, the debate on environmental risks focuses on 'shock' events, such as flooding caused by storm surges, neglecting the challenges of adapting to continuing stress.

This recalls criticisms of utility maximisation as a poor measure of the rightness of public policy, because it sacrifices the well-being of minorities (in this context) at risk to the wishes of the majority of taxpayers. Despite the signs that UK government policy is becoming more flexible, with additional elements incorporated into an enhanced priority scoring system,

communities in low-lying areas near tidal rivers and coasts will need to look beyond central budgets, to district drainage boards strengthened by increased flood rates and larger levies on local authority finance.

Government policy, meanwhile, includes Planning Policy Statement 25, designed to steer new development away from high flood risk areas. The provisions of this detailed code of practice include repeated statements that developments should not displace waters in a manner that 'increases flood risk elsewhere'. Such consequential damage is clearly regarded as a bad thing, without, however, any examination of the rights and wrongs. This policy document leaves neighbouring property-owners to, as before, carry the heavy evidential burden of proving 'nuisance' (Howarth, 2002).

As a key finding on the flood management policy and practice in England and Wales, Johnson (2008) comments on lack of consistency: 'important institutional differences' in 'approach to social justice across government'.

### Prioritising the most vulnerable

Lebel et al. (2007) report that, in Thailand, issues of social justice have largely been ignored in flood and disaster management. They express concern that adaptation to climate change may make some disadvantaged groups even more vulnerable than before, significantly exacerbating existing inequities. Among new approaches to address current and future flood protection challenges more fairly, they propose as a guiding principle: putting the most vulnerable groups first. This is the viewpoint adopted by many commentators in the literature on vulnerability to disaster risk.

The case for prioritisation of the least advantaged is articulated in Rawls, in the 'maximin' rule – also called the 'difference principle' – whereby decisions should be adopted to maximise the lot of the worst off, limiting social and economic inequality. This principle formed part of Rawls' critique of what he perceived as the injustice of utilitarianism.

Campbell (2001) comments that, according to Rawls, it is the rational decision by the parties to the compact to avoid risk that leads them to opt for the difference principle. The parties do not know how likely it is that, if they were to adopt the principle of maximum utility – maximisation of the sum of goods/benefits without reference to the way those are distributed – they would find themselves more worse off than they would be under a maximin strategy. So, in the face of uncertainty, they choose caution, 'to insure against catastrophic best luck' – a philosophy of humility in face of nature: 'There I would go, but for the grace of God'. Given the uncertainties surrounding

### Box: Research agenda

Issues that merit further research are, for example:

- **accountability:** mapping of institutional accountabilities: what are the political dynamics affecting decision-making on flood-related issues (e.g. spatial planning); what strategies can citizens and communities adopt to open up channels for (constructive) claims for improved flood protection?
- **equity:** tracking of investments in flood protection: according to which principles are financial resources and institutional capacities being allocated to protect location X as compared with location Y?
- **adaptability:** are political institutions and social structures well-equipped or, on the contrary, ill-adapted, to the challenge of cooperation/collective mobilisation, in the face of sustained flooding pressures and temporary flood events?

climate change, and the current prevalence of flood protection policies based on 'risk management', the theorising of Rawls, as so interpreted, has considerable resonance.

### Equity – and adaptability

This Background Note argues for further reflection on the ethical dimensions of public policies for flood protection.

Comparative case studies of different approaches to flood protection in countries of the South and North are needed. These would map existing accountabilities, review the status of equity – referenced to theories of justice – and investigate adaptabilities to stress and shocks. The Box sets out a suggested research agenda which would contribute to strengthened government policies on flood management.

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